### **August 2021: Month In Review**





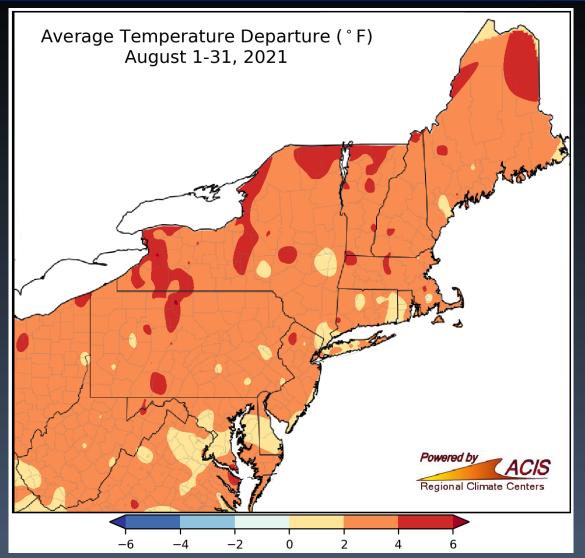


### **August Monthly Temperatures**

Location	Aug Avg Max T (Departure)	Aug Avg Min T (Departure)	Aug Avg T (Departure)	# of 90°+ Days (Avg #)
Binghamton,	78.5°	62.7°	70.6°	O Days
NY (Airport)	(+1.8°)	(+4.7°)	(+3.3°)	(1 Day)
Syracuse, NY	84.7°	66.2°	75.5°	5 Days
(Airport)	(+4.4°)	(+5.8°)	(+5.1)	(2 Days)
Avoca (Scranton), PA	83.9°	65.5°	74.7°	6 Days
	(+1.5°)	(+4.4°)	(+2.9°)	(3 Days)

### **August Monthly Temperatures**





August featured above average temperatures across all of Central NY & Northeast PA; with monthly temperatures generally 2 – 5° F above average areawide

\*\*Record warmest August for Syracuse, NY at 75.5°, which is 5.1°F above average (more details next slide)\*\*

Map Courtesy of the Northeast Regional Climate Center



### **August Monthly Temperature**

# **Records: Syracuse NY**

#### **#1 Warmest August Avg Temperature**

Year	Aug	
2021	75.5	
1937	75.4	
1955	74.5	
1947	74.2	
2016	74.1	

#### **#5 Warmest August Max Temperature**

Year	Aug
1949	85.3
1955	85.1
1947	85.0
2001	84.9
2021	84.7
2012	84.7
2002	84.7

#### **#2 Warmest August Min Temperature**

Year	Aug
1937	66.4
2021	66.2
2016	64.3
2005	64.0
1955	64.0

Very warm (2<sup>nd</sup> warmest for August) overnight lows significantly contributed to making this the <u>hottest August on record</u> <u>for Syracuse NY</u>. Daytime highs were the 5<sup>th</sup> warmest on record for August as well.



### **August Monthly Temperature**

### **Records: Avoca PA**

### **#3 Warmest August Avg Temperature**

Year	Aug
2005	75.5
<u>19</u> 80	75.2
2021	74.7
1995	74.7
2016	74.5
2020	74.4
2018	74.1
1947	74.0
1939	74.0
1937	74.0

#### **#2 Warmest August Min Temperature**

Year	Aug
2018	65.8
2021	65.5
1980	64.9
2005	64.8
1947	64.6
2016	64.3
1937	64.2
1984	64.0
2020	63.8
1906	63.8

### **#10 Warmest August Max Temperature**

Year	Aug
1995	86.9
2005	86.3
1980	85.4
2020	84.9
1939	84.9
1938	84.8
2016	84.6
1944	84.3
2002	84.2
2021	83.9

Very warm (2<sup>nd</sup> warmest for August) overnight lows significantly contributed to making this the 3<sup>rd</sup> hottest August on record for Avoca PA. Daytime highs were the 10<sup>th</sup> warmest on record for August as well.

### **August Monthly Temperature**

### **Records: Binghamton NY**

### #7<sup>th</sup> (Tied) Warmest August Avg Temperature

Year	Aug
2005	71.9
1995	71.6
1959	71.6
1955	71.5
1983	70.9
2001	70.7
2021	70.6
2002	70.6
1980	70.6
2016	70.5

#### **#1 Warmest August Min Temperature**

Aug
62.7
62.5
62.5
62.2
61.9
61.8
61.5
61.1
61.1
60.9

### **#16<sup>th</sup> Warmest August Max Temperature**

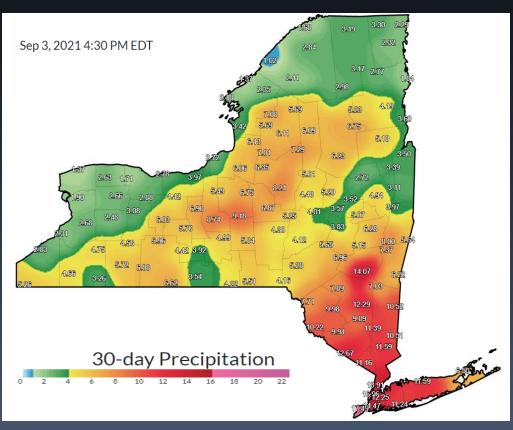
Year	Aug
1995	82.8
2005	82.0
1983	81.5
2002	81.2
1955	80.9
1959	80.8
2001	80.6
1966	80.4
1988	79.7
1980	79.6
2016	79.1
1991	79.0
1984	79.0
2020	78.9
1998	78.8
2021	<mark>78.5</mark>

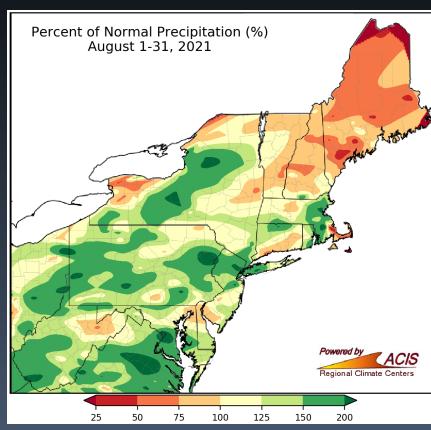
➤ Very warm (warmest on record for August) overnight lows significantly contributed to making this tied for 7<sup>th</sup> hottest August on record for Binghamton NY. Daytime highs were only the 16<sup>th</sup> warmest on record.



### **August Regional Rainfall Maps**

Above average rainfall in August was the rule for just about all of Central NY and Northeast PA; with totals ranging from 100-175% of normal, with a few spots in the Poconos & Finger lakes surpassing 200% of normal rainfall.





Map Courtesy of the New York Mesonet



NWSBinghamton weather.gov/bgm/

## **August Rainfall Totals**

Location	August 2021 Rainfall Total	Greatest 1-Day Rain Total	August Monthly Rainfall Rank (Wettest & Year)
Binghamton,	6.23"	<b>2.18"</b> Aug 22 <sup>nd</sup>	6 <sup>th</sup> wettest
NY (Airport)	+2.13"		(8.90" in 2011)
Syracuse, NY	6.57" +2.87"	<b>2.72"</b> Aug 19 <sup>th</sup>	6 <sup>th</sup> wettest (8.41" in 1956)
Avoca	6.13"	<b>2.56"</b> Aug 22 <sup>nd</sup>	12 <sup>th</sup> wettest
(Scranton), PA	+2.32		(11.76" in 1955)

# 6<sup>th</sup> Wettest August on Record:



### **Binghamton NY**

# Maximum 1-Month Total Precipitation for Binghamton Area, NY (ThreadEx)

Rank	Value	Ending Date	Missing Days
1	8.90	2011-08-31	0
2	8.88	2018-08-31	0
3	7.48	1959-08-31	0
4	6.79	1976-08-31	0
5	6.53	2006-08-31	0
6	6.23	2021-08-31	0
7	6.08	2012-08-31	0
8	5.96	2020-08-31	0
9	5.86	1994-08-31	0
10	5.79	1955-08-31	0
Period of record: 1951-05-25 to 2021-09-05			



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### 12<sup>th</sup> Wettest August on Record:

Weather Forecast Office

Binghamton, NY
Issued 2:30 PM Sept 8th, 2021

### **Avoca PA**

# Maximum 1-Month Total Precipitation for Avoca Area, PA (ThreadEx)

Rank	Value	Ending Date	Missing Days	
1	11.76	1955-08-31	0	
2	10.59	2018-08-31	0	
3	8.17	1915-08-31	0	
4	8.06	1933-08-31	0	
5	8.03	2011-08-31	0	
6	6.88	1901-08-31	0	
7	6.84	1911-08-31	0	
8	6.78	1994-08-31	0	
9	6.60	1926-08-31	0	
10	6.43	1937-08-31	0	
11	6.17	2003-08-31	0	
12	6.13	2021-08-31	0	
Period of record: 1901-01-01 to 2021-09-07				

Period of record: 1901-01-01 to 2021-09-07



# 6<sup>th</sup> Wettest August on Record:

### Syracuse NY

# Maximum 1-Month Total Precipitation for Syracuse Area, NY (ThreadEx)

Rank	Value	Ending Date	Missing Days	
1	8.41	1956-08-31	0	
2	7.26	1943-08-31	0	
3	7.19	1954-08-31	0	
4	6.73	1976-08-31	0	
5	6.66	2011-08-31	0	
6	6.57	2021-08-31	0	
7	6.36	2010-08-31	0	
8	6.07	1905-08-31	0	
9	5.95	2005-08-31	0	
10	5.76	1937-08-31	0	
11	5.45	1915-08-31	0	
12	5.41	1903-08-31	0	
Period of record: 1902-09-01 to 2021-09-07				

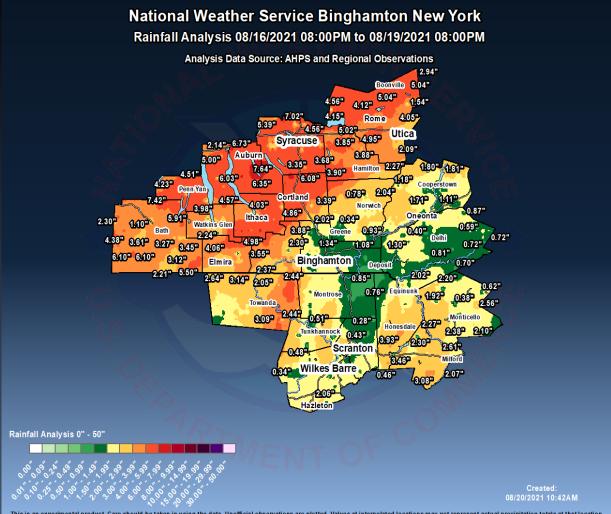


### Remnants of TS Fred 8/18 – 19

Weather Forecast Office

Binghamton, NY

Issued 2:30 PM Sept 8th, 2021



More Information including radar & satellite loops: https://www.weather.gov/bgm/pastFloodAugust202021

- Remnant low pressure system moved directly across NE PA and Central NY on the 18<sup>th</sup>
- Heaviest rainfall amounts were reported north and west of Binghamton; including areas such as Hornell, Elmira, Ithaca, Auburn, Syracuse and Rome...where 4 to 8 inches of rain were measured
- Numerous flash-flood reports were received and several rivers and lakes reached minor to moderate flood stage; including Cayuga Lake

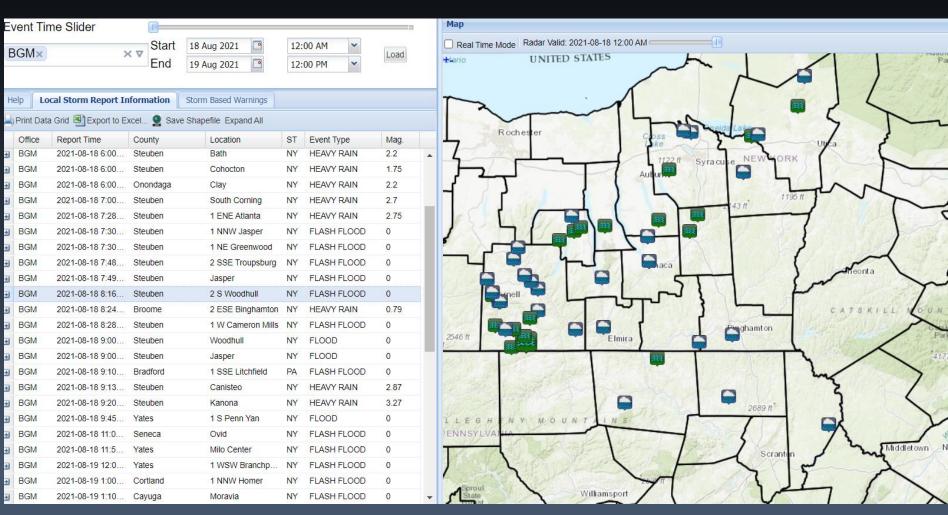


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### Remnants of TS Fred 8/18 - 19

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### **Flooding and Heavy Rain Reports**

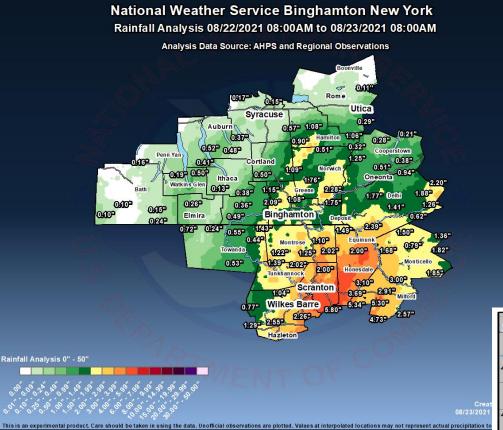




### **Hurricane Henri: Heavy Rain**

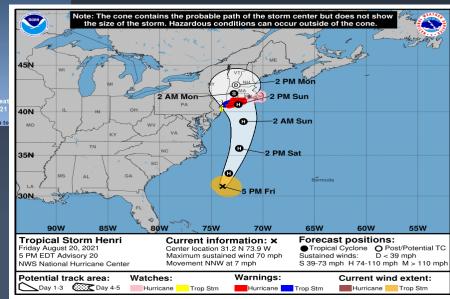
Weather Forecast Office

Binghamton, NY
Issued 2:30 PM Sept 8th, 2021



More Information, Including radar and satellite Loops: https://www.weather.gov/bgm/pastFloodAugust232021

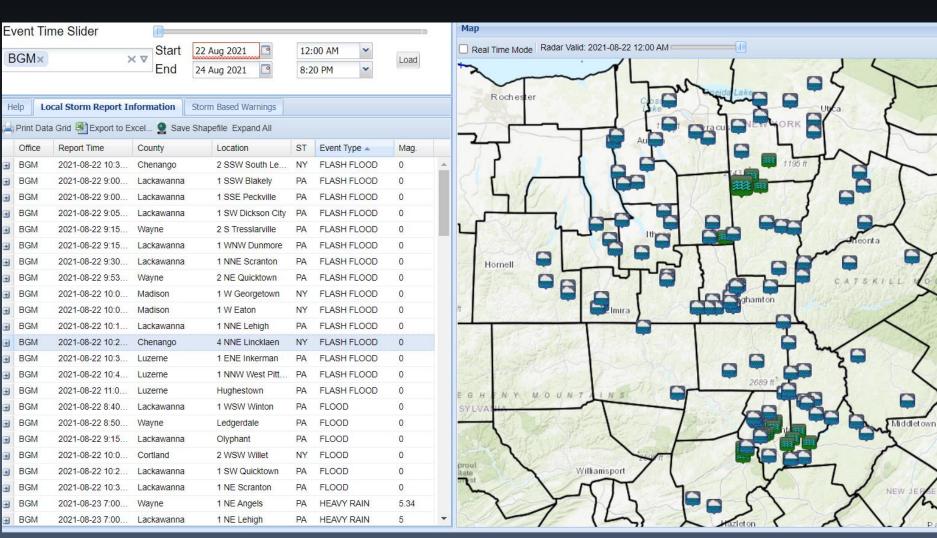
Hurricane Henri took an unusual track on its way to bringing heavy rainfall to most of NE PA and parts of CNY. The system stalled and eventually tracked westward, becoming a remnant low over the Hudson Valley & Catskills. The heavy rainfall circulated into are region from the north and east, similar to the famed winter time nor'easters. Max rain reports were 2-5" across the Poconos of NE PA.



### **Hurricane Henri: Heavy Rain**



### **Flooding and Heavy Rain Reports**





# **Summary**

- Another very wet, almost record wet, month for many locations in NE PA and Central NY...following a near record wet July.
- Very warm overnight lows (record warm in some instances) due to very humid conditions much of the month
- Combined near record warm overnight lows for the month, and above average daytime highs for the month lead to the warmest August on record for Syracuse NY!
- Very warm and humid overnight conditions allowed for the 3<sup>rd</sup> warmest August on record at Avoca PA, and 7<sup>th</sup> warmest August on record for Binghamton NY.
- Rainfall totals for the month were between 100 to 175% of normal, with a few locations in the Finger Lakes and southern Tug Hill above 200% of normal rainfall
- ▶ 6<sup>th</sup> wettest August on record for both Syracuse and Binghamton NY, with Avoca recording a top 12 wettest August.
- Two remnant tropical systems (Fred & Henri) impacted our area during the second half of the month, bringing widespread heavy rainfall and numerous flooding reports.

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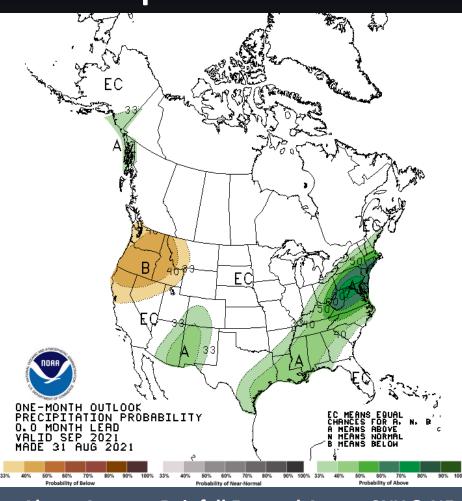
### September Outlook

### **Temperature Outlook**

# -MONTH OUTLOOK TEMPERATURE PROBABILITY MONTH LEAD ID SEP 2021

Near Average Temperatures Favored for the Month Across CNY & NE PA

### **Precipitation Outlook**



Above Average Rainfall Favored Across CNY & NE PA (much of this fell in the first 2-days with Ida)



# Thank You!



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